(2)

DEVICE HAVING A LARGE NUMBER OF SOURCE ANTENAAS INTEGRATED WITH LOW-NOISE FREQUENCY CONVERTER

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Abstract of **JP 8242119 (A)**

PROBLEM TO BE SOLVED: To enable signals to be received from plural satellites at low cost without deteriorating their quality by providing a device with plural source antennas as printed antennas formed on a single substrate. SOLUTION: The proposed device consists of a dielectric substrate 17 for supporting three annular slot antennas 3a to 3c directly etched on the substrate 17. Respective antennas 3a to 3c are excited by microstrip lines 4a to 4f. A radio frequency amplifier 11 amplifies one of signals sent from the lines 4a to 4f. The amplified signal is transmitted to a mixer 12 for receiving either one of frequency F1, F2 from a proper oscillator. A signal outputted from the mixer 12 is amplified by an intermediate frequency amplifier 13 before being transmitted to indoor devices (a demodulator, a decoder and a TV receiver) through a coaxial cable e.g.; Thus problems related to the use of waveguides can be solved by using plural slot antennas 3a to 3c printed on the substrate 17.